

What is claimed is:

1. A prestressed foam glass tile wherein said tile has a prestress compression of 1000 psi or greater.
2. The prestressed foam glass tile of claim 1, wherein said prestress compression is 2000 psi or greater.
3. The prestressed foam glass tile of claim 1, wherein said prestress compression is 3000 psi or greater.
4. The prestressed foam glass tile of claim 1, wherein said prestress compression is 4000 psi or greater.
5. The prestressed foam glass tile of claim 1, wherein said prestress compression is 5000 psi or greater.
6. The prestressed foam glass tile of claim 1, wherein a tension member is under tension inside of said prestressed foam glass tile to provide said prestress compression.
7. The prestressed foam glass tile of claim 6, wherein said tension members are comprised of tension bolts.
8. The prestressed foam glass tile of claim 6, wherein said tension members are comprised of wire.
9. The prestressed foam glass tile of claim 6, wherein said tension members are comprised of carbon fibers.
10. The prestressed foam glass tile of claim 6, wherein said tension members are comprised of standard seven-wire prestressing strands.

11. The prestressed foam glass tile of claim 6, wherein said tension members are comprised of compacted seven-wire prestressing strands.
12. The prestressed foam glass tile of claim 6, wherein said tension member is a rod.
13. The pres-stressed foam glass tile of claim 1, wherein a tension member is under tension outside of said prestressed foam glass tile to provide said prestress compression.
14. The prestressed foam glass tile of claim 13, wherein said tension members are comprised of tension bolts.
15. The prestressed foam glass tile of claim 13, wherein said tension members are comprised of wire.
16. The prestressed foam glass tile of claim 13, wherein said tension members are comprised of carbon fibers.
17. The prestressed foam glass tile of claim 13, wherein said tension members are comprised of standard seven-wire prestressing strands.
18. The prestressed foam glass tile of claim 13, wherein said tension members are comprised of compacted seven-wire prestressing strands.
19. The prestressed foam glass tile of claim 13, wherein said tension member is a rod.
20. The prestressed foam glass tile of claim 13, wherein said tension member is an angle iron.
21. The prestressed foam glass tile of claim 13, wherein said tension member is a plate.

22. The prestressed foam glass tile of claim 13, wherein said tension member is a bar.

23. A prestressed assembly for use in buildings or other structures comprising:

at least one prestressed foam glass tiles, having a prestressed compression of 1000 psi or greater;

at least two metal beams; and

one or more tension members

wherein said at least one foam glass tiles are placed between said at least two metal beams and held in compression of at least 1000 psi by said one or more tension members.

24. The prestressed assembly of claim 23 wherein said prestress compression of said at least one prestressed foam glass tile is 2000 psi or greater.

25. The prestressed assembly of claim 23 wherein said prestress compression of said at least one prestressed foam glass tile is 3000 psi or greater.

26. The prestressed assembly of claim 23 wherein said prestress compression of said at least one prestressed foam glass tile is 4000 psi or greater.

27. The prestressed assembly of claim 23, wherein said prestress compression of said at least one prestressed foam glass tile is 5000 psi or greater.

28. The prestressed assembly of claim 23, wherein said tension member is at least partially inside of said tiles.
29. The prestressed assembly of claim 23, wherein said assembly is a column in a building.
30. The prestressed assembly of claim 23, wherein said metal beams are comprised of steel.
31. The prestressed assembly of claim 23, wherein said tension members are comprised of tension bolts.
32. The prestressed assembly of claim 23, wherein said tension members are comprised of wire.
33. The prestressed assembly of claim 23, wherein said tension members are comprised of carbon fibers.
34. The prestressed assembly of claim 23, wherein said tension members are comprised of standard seven-wire prestressing strands.
35. The prestressed assembly of claim 23, wherein said tension members are comprised of compacted seven-wire prestressing strands.
36. The prestressed assembly of claim 23, wherein said tension members are comprised of one or more rods.
37. The prestressed assembly of claim 23, wherein said tension members are not within said at least one prestressed foam glass tile.
38. The prestressed assembly of claim 23, wherein said metal beams are cambered prior to assembly to account for stress which will be applied upon assembly.

39. The prestressed assembly of claim 23, wherein said assembly further comprises two metal pieces with beveled edges which are placed between said at least one foam glass tile and each of the metal beams.

40. The prestressed assembly of claim 23, wherein said at least one foam glass tile is comprised of two sets of foam glass tiles and said tension member is located between said two sets of foam glass tiles.

41. A prestressed assembly for use in a building having weight comprising at least one prestressed foam glass tiles, having a prestressed compression of 1000 psi or greater, wherein said tiles are under compression caused by a portion of the weight of the building.